



C9+ Analysis

GPA 2172/API 14.5 Report with GPA 2145 Physical Properties

Sample Information

		Sample Information
Sample Name		COTTONWOOD 28-33 EAST 5H GL 6-5-25
Operator		Permian Resources
Lease		COTTONWOOD 28-33 EAST 5H GL
Sample Date/Time:	Effective Date:	6-5-25 1:25 PM
Sample End Date		
Laboratory		Premier Measurement and Laboratory Services
Technician		AN
Analyzer Type		Gas Chromatograph - TCD
Analyzer Make & Model		Agilent Micro GC 3000
Last Calibration/Validation Date		6-9-2025
Sample Temperature		95 F
Sample Pressure		947 PSI
Sample Flow Rate		428 MCF
Ambient Temperature		89 F
Heat Tracing		No
Sample Type		Spot
Sampling Method		Fill and Purge
Company Collecting Sample		LSM
Sampled By		TH
Cylinder #		0988
Mole, Weight, or Percent (For Flowcal DON'T EDIT)		M
Sample Calculation Method(For Flowcal DON'T EDIT)		GPA 2172/API 14.5 Report with GPA 2145 Physical Properties
Analysis Date		2025-06-13 13:25:48

Component Results

Component Name	Un-Normalized Mole%	Norm Mole%	
Nitrogen	1.2700	1.2623	
Carbon Dioxide	0.3780	0.3757	
Methane	82.1640	81.6667	
Ethane	9.9650	9.9047	
Propane	4.0950	4.0702	

Component Name	Un-Normalized Mole%	Norm Mole%	
isobutane	0.5390	0.5357	
n-Butane	1.1740	1.1669	
isopentane	0.2790	0.2773	
n-Pentane	0.2950	0.2932	
hexanes	0.2790	0.2773	
heptanes	0.1150	0.1143	
octanes	0.0410	0.0408	
nonanes+	0.0150	0.0149	
hydrogen sulfide	0.0000	0.0000	
Total:	100.6090	100.0000	

Results Summary

Result	Dry	Wet/Sat	
Total Un-Normalized Mole%	100.6090		
Pressure Base (psia)	14.730		
Temperature Base (Deg. F)	60.00		
Gross Heating Value (BTU / Ideal cu.ft.)	1206.7	1185.7	
Gross Heating Value (BTU / Real cu.ft.)	1210.7	1190.1	
Relative Density (G), Ideal	0.6979	0.6966	
Relative Density (G), Real	0.6999	0.6989	
Compressibility (Z) Factor	0.9967	0.9963	
Total GPM	18.822	18.601	

PERMIAN

RESOURCES

Permian Resources meters all flared volumes, and volumes reported on C-129's in connection with flaring events are based on the available meter readings. While Permian Resources reports metered volumes on C-129 submissions, PR reviews the metered data for accuracy, reconciles any discovered discrepancies, and, where appropriate, submits amended C-129 reported volumes post-reconciliation to ensure accurate reporting.

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/ocd/contact-us>

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

DEFINITIONS

Action 557521

DEFINITIONS

Operator: Earthstone Operating, LLC 300 N. Marienfeld St Ste 1000 Midland, TX 79701	OGRID: 331165
	Action Number: 557521
	Action Type: [C-129] Venting and/or Flaring (C-129)

DEFINITIONS

For the sake of brevity and completeness, please allow for the following in all groups of questions and for the rest of this application:

- this application's operator, hereinafter "this operator";
- venting and/or flaring, hereinafter "vent or flare";
- any notification or report(s) of the C-129 form family, hereinafter "any C-129 forms";
- the statements in (and/or attached to) this, hereinafter "the statements in this";
- and the past tense will be used in lieu of mixed past/present tense questions and statements.

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QUESTIONS

Action 557521

QUESTIONS

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	Action Number: 557521
	Action Type: [C-129] Venting and/or Flaring (C-129)

QUESTIONS

Prerequisites	
<i>Any messages presented in this section, will prevent submission of this application. Please resolve these issues before continuing with the rest of the questions.</i>	
Incident Well	Unavailable.
Incident Facility	[fAPP2204236989] COTTONWOOD 28-33 FED COM EAST PAD

Determination of Reporting Requirements	
<i>Answer all questions that apply. The Reason(s) statements are calculated based on your answers and may provide additional guidance.</i>	
Was this vent or flare caused by an emergency or malfunction	No
Did this vent or flare last eight hours or more cumulatively within any 24-hour period from a single event	Yes
Is this considered a submission for a vent or flare event	Yes, minor venting and/or flaring of natural gas.
<i>An operator shall file a form C-141 instead of a form C-129 for a release that, includes liquid during venting and/or flaring that is or may be a major or minor release under 19.15.29.7 NMAC.</i>	
Was there at least 50 MCF of natural gas vented and/or flared during this event	Yes
Did this vent or flare result in the release of ANY liquids (not fully and/or completely flared) that reached (or has a chance of reaching) the ground, a surface, a watercourse, or otherwise, with reasonable probability, endanger public health, the environment or fresh water	No
Was the vent or flare within an incorporated municipal boundary or within 300 feet from an occupied permanent residence, school, hospital, institution or church in existence	No

Equipment Involved	
Primary Equipment Involved	Not answered.
Additional details for Equipment Involved. Please specify	Not answered.

Representative Compositional Analysis of Vented or Flared Natural Gas	
<i>Please provide the mole percent for the percentage questions in this group.</i>	
Methane (CH4) percentage	82
Nitrogen (N2) percentage, if greater than one percent	1
Hydrogen Sulfide (H2S) PPM, rounded up	0
Carbon Dioxide (CO2) percentage, if greater than one percent	0
Oxygen (O2) percentage, if greater than one percent	0
<i>If you are venting and/or flaring because of Pipeline Specification, please provide the required specifications for each gas.</i>	
Methane (CH4) percentage quality requirement	Not answered.
Nitrogen (N2) percentage quality requirement	Not answered.
Hydrogen Sulfide (H2S) PPM quality requirement	Not answered.
Carbon Dioxide (CO2) percentage quality requirement	Not answered.
Oxygen (O2) percentage quality requirement	Not answered.

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QUESTIONS, Page 2

Action 557521

QUESTIONS (continued)

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	Action Number: 557521
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QUESTIONS

Date(s) and Time(s)	
Date vent or flare was discovered or commenced	02/13/2026
Time vent or flare was discovered or commenced	12:00 AM
Time vent or flare was terminated	11:59 PM
Cumulative hours during this event	24

Measured or Estimated Volume of Vented or Flared Natural Gas	
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Cause: Equipment Failure Pipeline (Any) Natural Gas Flared Released: 74 Mcf Recovered: 0 Mcf Lost: 74 Mcf.
Other Released Details	Not answered.
Additional details for Measured or Estimated Volume(s). Please specify	Not answered.
Is this a gas only submission (i.e. only significant Mcf values reported)	Yes, according to supplied volumes this appears to be a "gas only" report.

Venting or Flaring Resulting from Downstream Activity	
Was this vent or flare a result of downstream activity	No
Was notification of downstream activity received by this operator	Not answered.
Downstream OGRID that should have notified this operator	Not answered.
Date notified of downstream activity requiring this vent or flare	Not answered.
Time notified of downstream activity requiring this vent or flare	Not answered.

Steps and Actions to Prevent Waste	
For this event, this operator could not have reasonably anticipated the current event and it was beyond this operator's control.	True
Please explain reason for why this event was beyond this operator's control	hlp compressor station bol
Steps taken to limit the duration and magnitude of vent or flare	Open valves to divert gas to a second midstream company to relieve pressure off the line
Corrective actions taken to eliminate the cause and reoccurrence of vent or flare	Clear consistent communication with midstream provider

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ACKNOWLEDGMENTS

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ACKNOWLEDGMENTS

<input checked="" type="checkbox"/>	I acknowledge that I am authorized to submit a <i>Venting and/or Flaring</i> (C-129) report on behalf of this operator and understand that this report can be a complete C-129 submission per 19.15.27.8 and 19.15.28.8 NMAC.
<input checked="" type="checkbox"/>	I acknowledge that upon submitting this application, I will be creating a new incident file (assigned to this operator) to track any C-129 forms, pursuant to 19.15.27.7 and 19.15.28.8 NMAC and understand that this submission meets the notification requirements of Paragraph (1) of Subsection G and F respectively.
<input checked="" type="checkbox"/>	I hereby certify the statements in this report are true and correct to the best of my knowledge and acknowledge that any false statement may be subject to civil and criminal penalties under the Oil and Gas Act.
<input checked="" type="checkbox"/>	I acknowledge that the acceptance of any C-129 forms by the OCD does not relieve this operator of liability should their operations have failed to adequately investigate, report, and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment.
<input checked="" type="checkbox"/>	I acknowledge that OCD acceptance of any C-129 forms does not relieve this operator of responsibility for compliance with any other applicable federal, state, or local laws and/or regulations.

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CONDITIONS

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CONDITIONS

Created By	Condition	Condition Date
jdoolingpr	If the information provided in this report requires an amendment, submit a [C-129] Amend Venting and/or Flaring Incident (C-129A), utilizing your incident number from this event.	2/25/2026